



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,840	05/01/2002	Olivier Lenoir	USB99 JMC SCU	1234
466	7590	12/01/2006	EXAMINER	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			BLUDAU, BRANDON S	
			ART UNIT	PAPER NUMBER
			2132	

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/009,840	<b>Applicant(s)</b> LENOIR ET AL.	
	<b>Examiner</b> Brandon S. Bludau	<b>Art Unit</b> 2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 8/31/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This action is in reply to amendment filed August 31, 2006. Claims 1 and 4 have been amended and no claims have been added or cancelled. Claims 1-12 are pending.
2. The examiner acknowledges and accepts the amendments to claims 1 and 4 to overcome the 112 rejection and objection respectively.

### ***Response to Arguments***

3. Applicant's arguments filed 8/31/2006 pertaining particularly to claim 1 have been fully considered but they are not persuasive. Applicant argues that the transmitted message from the server site to the client site providing to the user means for generating an authentication password is not a voice message. The Examiner notes that it doesn't specifically state in the disclosure of Ratayczak that a voice message is sent. However, it is pointed out in column 7 lines 40-47 wherein the embodiment is specifically a telephone. The Examiner argues that it is an obvious modification to Ratayczak especially in view of the telephone embodiment to transmit the message (second code word) via voice message wherein the voice message is heard and then input into the first device. The Examiner mentions that the telephone embodiment is also described as a conventional fixed telephone network, wherein text messages weren't an option, thus making a voice message an obvious enhancement.

The Applicant further argues that neither Ratayczak alone or in combination with Hodges disclose wherein the second code word (voice message) provides to the user means for generating an authentication password intended to be transmitted to the

Art Unit: 2132

server site. The Applicant further notes that the combination with Hodges provides to the communication device (as opposed to the user) means for generating an authentication password. The Examiner argues that the user and the device may be considered a collective entity in this embodiment. It is most common in the art and everyday speech to refer to a user and an access device collectively as the user. The message/ code word is transmitted to the user operating the device so that the user may gain access. The claim language does not provide an explicit distinction that would be obvious for one of ordinary skill in the art to necessarily distinguish the user from the user device. Furthermore, the Applicant argues advantages for the embodiment that are neither described nor obvious in view of the claim disclosure for one to distinguish the user completely from the user device. Moreover, in view of the disclosure, specifically page 20 lines 15-20, it is shown that a client device generates an authentication password. The Examiner argues that the claim language as presented and in view of the Applicant's disclosure does not overcome the prior art of record.

4. The remaining dependent claims are rejected based on the previous action in view of the arguments presented above.

***Claim Rejections - 35 USC § 103***

5. Claims 1-5,7,9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratayczak (US Patent 6259909), and further in view of Hodges (US Patent 5420908).

Art Unit: 2132

6. As per claim 1, Ratayczak discloses a process of securing the access to a data processing server from a client site through at least a first communication network, this server comprising means for handling a protocol of authenticating a client site user, comprising a sequence of receiving and processing identification data of a client site user, and a sequence of transmitting a message from the server site to a client site user owned communication equipment through a second communication network (column 6 line 59- column 7 line 23), characterized in that this transmitted message is a voice message (column 7 lines 36-47 wherein using a telephone it is obvious that a voice message may be sent [see arguments above]) providing to the aforesaid user means for generating an authentication password intended to be transmitted to the aforesaid server site through either the first or the second communication network, the call number of the aforesaid communication equipment being searched from an authentication data base (column 4 lines 12-25 wherein the number call number is inherently stored in the subscriber-related data).

Ratayczak does not disclose wherein the process provides to the user means for generating an authentication password.

Hodges does disclose a process where the data processor provides the user means for generating an authentication password to be sent back to the processor in column 3 lines 45-54 (see arguments above).

Hodges is analogous art because it is directed to a method of authenticating a user using a mobile telephone device using a challenge response protocol wherein the

Art Unit: 2132

wireless device uses an encryption key to encrypt a challenge from the authenticator and the authenticator verifies and authenticates the response.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Ratayczak to include providing the user with a means for generating a password such as a key for use in a challenge response protocol.

Motivation for one to modify Ratayczak as discussed above would have been to enhance the security of the authentication method by authorizing a user without having to send the actual password/key across the network as stated in Hodges and as is well known in the art. Challenge-response protocols are very prevalent and widely used in authentication networks to authenticate users. The wide use is attributed to the added security by never having to transmit the secret across the network and preventing replay attacks on an intercepted response.

7. As per claim 2, Ratayczak discloses the securing process according to claim 1, characterized in that it comprises steps of:

Requesting identification data (ID, MPC) from the client site through the first communication network (column 6 lines 59-64);

Processing the aforesaid data (ID, MPC) and searching an authentication database for a client user owned mobile communication equipment call number (this is inherent in column 7 lines 1-5 and 36-44 in that the server must know the call number of the mobile device from the HLR described in column 4 lines 12-24);

Calling the aforesaid communication equipment through at least a second communication network (column 7 lines 1-5 and 36-44);

Art Unit: 2132

After establishing a communication with the aforesaid mobile communication equipment, generating a random or pseudo random password (MPA) (column 7 lines 36-40);

Sending a voice message comprising the aforesaid random password through the second communication network (column 7 lines 1-5 see also above);

Requesting the user provide, from the client site through the first communication network an authentication password (7 lines 13-15) derived from the aforesaid random or pseudo random password; and

Authenticating the aforesaid authentication password (column 7 lines 13-15).

Ratayczak does not disclose wherein the password from the server is randomly generated or that the authentication password is derived from this random password.

Hodges discloses a method wherein the authenticator generates a challenge that is used to derive the authenticated response. Hodges however does not disclose wherein the challenge is random. However, as is widely known and would be understood by one of ordinary skill in the art, random challenges are extremely common in challenge response protocols and would be an obvious feature in a challenge response authentication method.

Obviousness and motivation to combine Hodges are mentioned in relation to claim 1, as the combination here is similar.

8. As per claim 3, Ratayczak discloses the process according to claim 2, characterized in that the authentication password matches the server generated random

Art Unit: 2132

or pseudo random password transmitted through the mobile communication equipment (column 7 lines 1-13).

9. As per claim 4, Hodges discloses in regards to claim 3, a process characterized in that the authentication password is built from the random or pseudo random password generated by the server and transmitted through the mobile communication equipment, applying a client user known key that is embodied within the server authentication data base, the authentication step comprising a step of converting the aforesaid authentication password into a random or pseudo random authentication password by applying the aforesaid key (column 5 lines 30 –35 wherein the random challenge is well known and practiced in the art as discussed above).

Motivation and obviousness are the same as applied to claims 1 and 2 discussed above.

10. As per claim 5, Ratayczak discloses the process according to claim 1, characterized in that the identification data requested from the client consists of a couple [identification code/client password] (column 6 lines 59-64).

11. As per claim 7, Ratayczak discloses the securing process according to claim 1, characterized in that it comprises on the server side the steps of:

Requesting identification data (ID, MPC) from the client site through the first communication network (column 6 lines 59-64);

Processing the aforesaid data (ID, MPC) and searching an authentication database for a client user owned mobile communication equipment call number (this is



Art Unit: 2132

inherent in column 7 lines 1-5 and 36-44 in that the server must know the call number of the mobile device from the HLR described in column 4 lines 12-24);

Calling the aforesaid communication equipment through at least a second communication network (column 7 lines 1-5 and 36-44);

In case the communication is established with the aforesaid mobile communication equipment, send a voice message requesting the user to send an encryption key (Column 4 lines 55-62, wherein the codeword can be used as an encryption key as stated in column 7 lines 59-62)

Receiving and recognizing the encryption key transmitted by the client by means of the mobile equipment keyboard (column 4 lines 59-65),

But does not disclose deciphering by means of the aforesaid encryption key an authentication password transmitted by the client through the first communication network, this password resulting from the encryption of a client password performed at the client site by means of the encryption key; and authenticating the client password which results from the authentication password deciphering

Hodges does disclose deciphering by means of the aforesaid encryption key an authentication password transmitted by the client through the first communication network, this password resulting from the encryption of a client password performed at the client site by means of the encryption key; and authenticating the client password which results from the authentication password deciphering (column 5 lines 30-35).

Hodges is analogous art because it is directed to a method for authenticating a user in a challenge response authentication method.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Ratayczak to include using the requested and sent key at the server to encrypt the previously transmitted password/challenge to reveal a subsequent password/response.

Motivation for one to modify Ratayczak as discussed above would have been to enable the transmission of a password without sending the secret data used for the authentication across the network as is discussed in the rejection to claims 1 and 2.

12. Claim 9 is rejected because it discloses the same subject matter as claim 1.

13. Claim 10 is rejected because it discloses the same subject matter as claim 2.

14. Claim 11 is rejected because it discloses the same subject matter as claim 7.

15. Claim 12 is rejected in regards to claim 1 because it is directed to an application for utilizing the process of claim 1.

16. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratayczak (US Patent 6259909), in view of Hodges (US Patent 5420908), and further in view of Fielder (US Patent 5995624)

17. As per claim 6, Ratayczak and Hodges disclose the process according to claim 1, but do not disclose wherein the process is characterized in that the step of requesting the authentication password from the user takes place during a predetermined time-out delay beyond which authentication is denied.

Fielder does disclose wherein the process is characterized in that the step of requesting the authentication password from the user takes place during a

Art Unit: 2132

predetermined time-out delay beyond which authentication is denied (column 8 lines 45-49).

Fielder is analogous art because it is directed towards authenticating a user from entry of a password.

It would have been obvious for one of ordinary skill in the art to modify Ratayczak et al. to include a time out interval in which the authentication password needed to be entered.

Motivation for one to modify Ratayczak as discussed above would have been to enhance the security of the process so as to prevent an attack that would use the time delay to intercept the challenge/response or simply to free up processing capability from an authentication session that didn't complete in the necessary time frame. These motivation statements are well known in the art as commonly used in authentication protocols.

18. As per claim 8, Ratayczak and Hodges disclose the process according to claim 7, but do not disclose wherein it is characterized in that the step of receiving the encryption [key] takes place during a predetermined time-out delay beyond which the authentication is denied.

Fielder does disclose wherein receiving the encryption [key] takes place during a predetermined time-out delay beyond which the authentication is denied (column 8 lines 45-49).

Obviousness and motivation to combine are the same as presented in claim 6 above as it is a similar limitation.

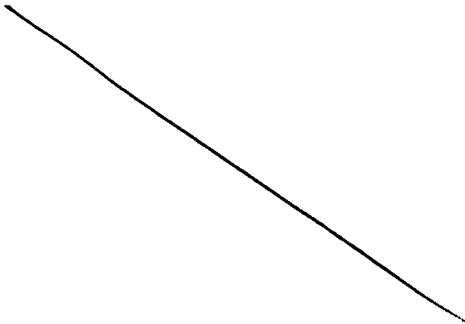
***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon S. Bludau whose telephone number is 571-272-3722. The examiner can normally be reached on Monday -Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

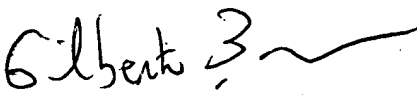


Art Unit: 2132

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brandon S Bludau  
Examiner  
Art Unit 2132

BB  
\*\*\*

  
GILBERTO BARRON JR  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100